

MFJ

Remote Sensor Add-on Kit for High-Q Antennas

Model MFJ-83

INSTRUCTION MANUAL

CAUTION: Read All Instructions Before Operating Equipment

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Installation Manual

INTRODUCTION

Installation of this simple kit on your screwdriver antenna will allow you to enjoy the convenience of quickly and accurately returning to antenna settings, when used with the MFJ-1922 Screwdriver Antenna Digital Controller With Counter.

The Hi-Q screwdriver antenna does not have a magnetic switch installed from the factory. In order for the Digital Controller to function, the screwdriver antenna must have a magnet and a magnetic switch installed.

Follow the instructions in this manual. Install the magnetic switch onto the antenna. Connect the sensor wires from the antenna to the digital controller.

PARTS INVENTORY

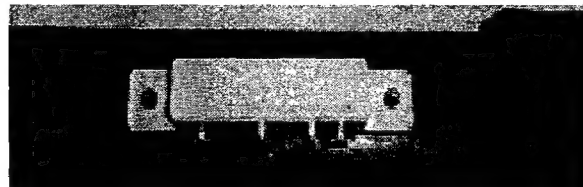
- 1 – Surface mount magnetic contact (switch)
- 2 – Heavy duty cable straps
- 2 – lengths of switch wire, one brown, one white

HI-Q 4/80 RT INSTALLATION

- (1) From the base of the antenna, locate the hex screws. Above the hex screws will be some 6-32 silver screws. These screws secure the motor inside of the antenna. Measure 2 ½ inches up from the silver screws. This is where the magnet should be located inside the antenna. Make a mark at this point with tape or similar.

TEMPORARY WIRING AND TESTING

- (1) Temporarily secure the switch (Fig.3) to the outside of the antenna with a piece of tape; center the switch over the mark corresponding to the position of the magnet.
- (2) Connect the yellow wire from the MFJ-1922 controller directly to the red wire from the antenna motor.
- (3) Connect the green wire from the MFJ-1922 controller to the wire from the motor. Wrap the connections with electrical tape or other suitable insulating material.
- (4) Connect the MFJ-1922 red (+) and black (-) wires to a 12 VDC source.



- (5) Connect a continuity tester across the two terminals of the switch. Since the switch is normally "closed," the continuity tester may indicate a closed circuit at this time, depending on the position of the magnet relative to the switch.
- (6) Apply 12 VDC to the MFJ-1922 and turn the MFJ-1922 on. Press UP or DOWN to turn the antenna motor; you will hear the motor run.
- (7) As the motor turns you should be able to observe the continuity tester going "on" and "off" as the switch alternates between open and closed. If you are not seeing this result, adjust the position of the switch on the shaft up or down very small amounts until the switch shows "on" and "off" on the continuity tester. ***The correct alignment of the magnet and switch is critical for proper operation.***
- (8) Remove the tape from the switch and secure it in place with the plastic cable straps, ***making sure to keep the switch in exactly the same position on the main shaft.***
- (9) Remove the continuity tester.
- (10) Temporarily connect the sensor wires (brown and white) from the MFJ-1922 to the switch terminals (the polarity does not matter). Now, when you activate the motor, the on/off analog signal from the switch will cause the LED counter in the MFJ-1922 to "count."
- (11) Proceed with calibration instructions in the MFJ-1922 manual..

TECHNICAL ASSISTANCE

If you have any problem with this unit first check the appropriate section of this manual. If the manual does not reference your problem or your problem is not solved by reading the manual, you may call *MFJ Technical Service* at **662-323-0549** or the *MFJ Factory* at **662-323-5869**. You will be best helped if you have your unit, manual and all information on your station handy so you can answer any questions the technicians may ask.

You can also send questions by mail to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759; by Facsimile (FAX) to 662-323-6551; or by email to techinfo@mfjenterprises.com. Send a complete description of your problem, an explanation of exactly how you are using your unit, and a complete description of your station.